



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,687	03/21/2002	Brian R. Odgers	36-1531	4659
23117	7590	06/09/2009	EXAMINER	
NIXON & VANDERHYE, PC			BOYCE, ANDRE D	
901 NORTH GLEBE ROAD, 11TH FLOOR			ART UNIT	PAPER NUMBER
ARLINGTON, VA 22203			3623	
MAIL DATE		DELIVERY MODE		
06/09/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/088,687	ODGERS ET AL.
<b>Examiner</b>	<b>Art Unit</b>	
Andre Boyce	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 18 March 2009.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 27-49 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 27-49 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. This Final office action is in response to Applicant's amendment filed March 18, 2009. Claims 1-26 have been canceled. Claims 27-49 have been added and are pending.
2. The previously pending claim objections have been withdrawn as moot. The previously pending rejection to claim 23 under 35 USC 112, second paragraph, has been withdrawn as moot.
3. Applicant's arguments filed March 18, 2009 have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 27-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 27, 35, 38, 47 and 49 include "date/time," rendering the claims vague and indefinite, since it is unclear what "/" is suppose to represent (e.g., and, or, and/or). Based upon Applicant's specification and for examination

purposes, the claims will be examined assuming that "/" equates to "or." Clarification is required. Claims 28-34, 36, 37, 39-46 and 48 are rejected as dependent claims.

***Claim Rejections - 35 USC § 102***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. Claims 27-41 and 43-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Du et al (US 5,826,239).

As per claims 27, 35, 38, 43, 47 and 49, Du teaches managing availability of workers in a team in support of the allocation of workers in said team to carry out tasks which together fulfill one or more work requirements (i.e., distributed resource management, column 4, lines 20-32), each worker in the team being provided with a worker interface (i.e., hardware and software machine 12a, figure 2), and said team including at least first and second workers (i.e., plurality of resources, column 4, lines 38-43), the comprising: storing team availability constraint definition data defining constraints relating to availability of said workers (resources) in said team for allocation to tasks (column 9, lines 43-45 where HP OpenPM evaluates the rules and performs the rule actions when the rule conditions are met, whereby the rule conditions constitute the constraints of the resource allocation system, wherein a resource is a person, computer process or machine, column 10, lines 38-41); storing current aggregate availability data representation of the aggregate availability of said workers (resource) in said team (column 4, lines 27-28 where the system checks a

central site for availability of resource groups, whereby the central site constitutes a storage of initial data); receiving at data processor (global resource manager, GRM, figure 8), from a first worker interface, a first worker future availability change proposal including dates/times at which said first worker is or is not available for allocation to tasks (i.e., each local resource manager (LRM) has all status information of and full control over resources at its site, column 3, lines 4-5, wherein a plurality of LRMs are connected to the GRM, figure 8 and column 13, lines 12-25, including predictable status changes, including for example that engineers will not be available on weekends, wherein temporal specification includes the begin time, end time and specification of repeatedness, wherein the begin/end time specification includes year, month, day, etc., column 16, lines 25-44); operating said data processor to: generate proposed aggregate availability data representation of proposed aggregate availability of said workers (resources) in said team, based on said current aggregate availability data together with said first worker future availability change proposal (column 13, lines 6-8, where resource status or availability is provided); determine whether said proposed aggregate availability data is compatible with said team availability constraint definition data (column 4, lines 57-67 and column 5, line 1, where the system determines the resource availability with respect to the specified activity and forwards the information to the second computer to assign the resource to the activity); in the case that said proposed aggregate availability data is compatible with said team availability constraint definition data, refresh said current availability data with said proposed availability

data (column 4, lines 57-67 and column 5, lines 1-5, wherein the local resource manager assigns the available resources and updates the stored status data); and in the case that said proposed aggregate availability data is not compatible with said team availability constraint definition data, transmit a rejection signal to at least said second worker interface (i.e., unpredictable status change, wherein a resource may become not available, wherein the status change, i.e., rejection, is transmitted to another local resource manager (LRM), which is the interface for all the resources associated with the LRM, column 16, lines 56-66), whereby said second worker (resource) interface may respond to receipt of said rejection signal by outputting a second worker future availability change proposal including dates/times at which said second worker is or is not available for allocation to tasks which compensates for the first worker future availability change proposal (i.e., LRM selects one of the resources in the resource group to perform the specified activity, based upon status data, columns 4-5, lines 65-67 and 1-5, including predictable status changes, including for example that engineers will not be available on weekends, wherein temporal specification includes the begin time, end time and specification of repeatedness, wherein the begin/end time specification includes year, month, day, etc., column 16, lines 25-44).

As per claims 28 and 36, recites the same limitations as claim 1 and is therefore subject to the same art rejection. Du teaches multiple resource interfaces in Figure 1 where there are multiple users and machines.

As per claim 29, Du teaches at least one resource interface is provided with at least one resource profile, the resource profile comprising data in respect of a resource (i.e., local resource manager (LRM) including resource database 150, column 13, lines 41-47), the method further comprising the steps of: receiving at a resource interface a rejection signal (i.e., unavailable resource state, column 15, lines 55-60); reviewing a resource profile provided with respect to that resource interface; and outputting availability data to the data processing means dependent on the outcome of the review (i.e., LRM tracks dynamic status information including availability and work load, column 13, lines 43-47).

As per claim 30, Du teaches at least first and second data types in respect of a resource, the first data type comprising at least one resource attribute (i.e., resource name and capability, column 15, line 1) and the second data type comprising availability commitments of the resource (i.e., resource status, column 15, line 1).

As per claim 31, Du teaches a priority indicator for at least one availability commitment of the resource, and wherein said step of reviewing a resource profile comprises reviewing the priority indicator (i.e., two aspects of resource status including state and load, column 15, lines 50-54).

As per claim 32, Du teaches said rejection signal comprises an identifier for a selected resource, or for a selected set of resources (i.e., state of the resources including not available, column 15, lines 50-59), and wherein said steps of reviewing a resource profile and outputting availability data to the data processing means dependent on the outcome of the review comprise reviewing the resource profile for

the presence of said identifier and outputting availability data only if said identifier is present (e.g., state(R) and load (R) to denote the current state and load of R, column 15, lines 50-54).

As per claim 33, Du teaches subsequent to generating and transmitting said rejection signal, triggering termination of tasks being carried out in respect of a common work requirement to which the rejection signal is related (i.e., trigger implementation, column 18, lines 51-57).

As per claim 34, Du teaches said step of triggering termination is carried out after a predetermined time has elapsed during which no availability data has been received from a resource interface (i.e., temporal status specification, column 16, lines 37-40).

As per claim 37, Du teaches a resource profile comprises at least one data element and a rejection message comprises at least one data element (i.e., attributes of the resource, column 15, line 1), review of a resource profile comprising matching the data element from a rejection message against the data element or elements in a resource profile (i.e., match against status and capability of the resource).

As per claim 39, Du teaches constraint definition data store comprises means for storing at least two sets of constraint definition data, each set having at least one input, said apparatus having means for reviewing constraint data received at one input against constraint data received at another input, and means for either

outputting a rejection message or for loading the received constraint data, in dependence on the outcome of the review (column 4, lines 57-67 and column 5, lines 1-5, where the LRM system assigns the available resources and updates the data in the second computer accordingly. The updated information would function as further availability data since the computer updates the resources and activities with respect to availability information as the information changes.)

As per claim 40, Du teaches the signal input is also for receiving a management signal input from at least one management interface, one or more of said management signals comprising constraint data with respect to at least one resource, and the apparatus further comprises means for using constraint data received from a management interface to enter or change data in the constraint definition data store (column 19, lines 60-67 where OpenPM contains a rule node which contains a list of condition-action rules or constraints and as indicated in Figure 4 there is a database manager (64) that interacts with the OpenPM database which contains the constraint definition data. In addition, column 9, lines 30-34 teach that the system can interact with external environments.), and means to categorize data in the constraint definition data store according to source type (column 17, lines 40-43 where each resource group has an ID associated with it that acts as a means of sorting or categorizing the constraint information), the apparatus being further arranged, on review of the content of the constraint definition data store, to resolve any conflict in constraint data relevant to a task acceptance signal according to its source type (column 10, lines 48-56 where the resource managers (28) are used to

resolve any conflicts between the constraints and the resources so that the resources can be assigned.).

As per claim 41, Du teaches the constraint definition data store is categorized by location in the store. (As noted in Figure 1, the system contains databases. It is well known that databases store information in files where each file would have a unique "address" or location in the database.)

As per claims 44 and 45, Du teaches said constraint definition data define constraints, relating to the allocation of tasks to respective resources (LRM with control over resources, column 13, lines 41-43).

As per claim 46, Du teaches a task acceptance signal from a resource interface and wherein the apparatus is arranged in use to respond to receipt of a task acceptance signal by reviewing the content of the constraint definition data store and, depending on the result of the review to output to at least one resource interface a notification signal identifying at least one task for which resource is required, or to allocate resource to a task (i.e., task status state and load, including task availability, wherein the task being available would include task acceptance, column 15, lines 50-59).

As per claim 48, Du teaches said constraint definition data comprises at least two sets of constraint definition data (i.e., state and load data, column 15, lines 50-54), and the method further comprises: receiving via a user interface a proposed modification to a first set of constraint definition data (i.e., predictable change status, column 16, lines 30-32); reviewing the proposed modification against the second set

of constraint definition data; in the case that the proposed modification is compatible with the second set, modifying the first set accordingly; and in the case that the proposed modification is not compatible with the second set, transmitting a rejection signal to the user interface (i.e., determination of whether the change status state is available or not available, column 16, lines 33-37).

***Claim Rejections - 35 USC § 103***

8. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Du et al (US 5,826,239).

As per claim 42, Du teaches the source of data in the third category being requirements of an operational support system for use in performing allocated task(s) (column 11, lines 37-50 where the service management layer (102) functions as a support system for performing the tasks) and the apparatus is further adapted to store at least a third category of data in the constraint definition data store (column 9, lines 41-44 where the system evaluates the rules or constraints and performs the rule actions when the rule conditions are met. Whereby "rules" indicates more than one rule). Official notice is taken that it is old and well known that "rules" may indicate three or more. Therefore it would have been obvious to one of ordinary skill in the art to modify the system of Du with three (or more) rules, since the claimed invention is merely a combination of old elements and in the combination each element merely would have performed the same function as it did

separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

***Response to Arguments***

9. In the Remarks, Applicant argues Du does not disclose future availability change proposal including dates/times at which said worker is or is not available for allocation to tasks. The Examiner respectfully disagrees. Du discloses predictable status changes, including for example that engineers will not be available on weekends, wherein temporal specification includes the begin time, end time and specification of repeatedness, wherein the begin/end time specification includes year, month, day, etc. (column 16, lines 25-44).

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and

any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (571)272-6726. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andre Boyce/  
Primary Examiner, Art Unit 3623  
June 7, 2009